

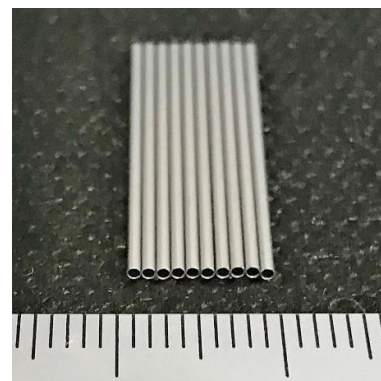
NIPPON KINZOKU's Fine Pipes Are Used in Mass Flow Controllers for Semiconductor Manufacturing Equipment

-High Quality and Stability Have Earned Us Orders-

NIPPON KINZOKU CO., LTD. (Headquarters: Minato-ku, Tokyo, President Yasushi Shimokawa, TOKYO: 5491) announced that the fine pipes (welded drawn pipes) that we manufacture and sell have been adopted as bypass tubes for mass flow controllers in semiconductor manufacturing equipment by an overseas manufacturer.



Mass flow controller schematic



Examples of fine pipes used
(*The number of pieces does not matter.)

Mass flow controllers (flow control devices), which are essential for semiconductor manufacturing equipment, require repeatability and precision. The pipes used in them must satisfy many important specifications, such as the precision of the inner and outer diameters, surface roughness, and end face quality, so stable quality is important.

For over 20 years, we have been developing pipes for mass flow controllers at our Technical Research Institute and Gifu Plant, and in recent years have developed a small-diameter, thick-walled pipe with high internal precision that eliminates the internal polishing process*.

Based on this knowledge and experience, we have completely reexamined our manufacturing processes, manufacturing conditions, molds and auxiliary materials, and have achieved a stable supply of fine pipes that meet customer specifications.

*Reference: Press release dated April 18th, 2023

NIPPON KINZOKU has Commercialized Small-Diameter Tubes with "Inner Surface Precision"

https://www.nipponkinzoku.co.jp/assets/images/2023/04/230418_nipponkinzoku_news_en.pdf

This product is in line with the vision of our 11th business plan, "NIPPON KINZOKU 2030," and is our original new product that meets new needs with the keyword "Near Net Performance" (= realizing the performance required of the final product with materials and components).

By reducing various processes such as internal polishing, this product will contribute to reducing our customers' manufacturing costs and improving yields. In addition, because it enables customers to reduce their environmental impact by eliminating the polishing process, it is also an environmentally friendly "eco-products" certified according to our own standards. Our goal is to achieve Net Zero CO₂ emissions by 2050, and we will contribute to the realization of carbon neutrality by expanding sales of our eco-products.

Fine Pipe overview

Fine pipes are manufactured to the optimum quality (inner surface roughness, roundness, straightness, dimensional accuracy, etc.) for each application, and are used as key parts in a wide range fields.

URL: <https://www.nipponkinzoku.co.jp/en/corporate-profile/business/precise-processed-products>

Technical Research Institute overview

Taking advantage of our location in Tokyo, we serve as an "open institute" that customers can easily visit, making full use of various experimental and research equipment to respond to customer needs and new technology development.

URL: <https://www.nipponkinzoku.co.jp/en/corporate-profile/office/laboratory>

Gifu Plant overview

Main products: Stainless precise pipes, Special alloy pipes, Stainless steel armored optical fibers

URL: <https://www.nipponkinzoku.co.jp/en/corporate-profile/office/gifu-plant>

About the vision of the 11th Business Plan "NIPPON KINZOKU 2030"

We have set our vision "Multi & Hybrid Material Company that creates new eco and human friendly values together ~By rolling and composite forming a wide variety of materials, we achieve the performance required for the final product and contribute to the future of people and the earth~" in our 11th Business Plan. With "Multi & Hybrid Material" (= utilizing a wide variety of materials to meet various needs), "Near Net Shape" (= achieving complex molding processes that are close to the final product shape), and "Near Net Performance" as key concepts, we are promoting future-oriented product development using our original technologies, and aiming to transform our business structure with a focus on new technologies and new products that meet new needs.

Note: This document has been translated from a part of the Japanese original for reference purposes only. In the event of any discrepancy between this translated document and the Japanese original, the original shall prevail.

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